

Title (en)

PRE-PREG, FIBER-REINFORCED COMPOSITE MATERIAL, AND THERMOPLASTIC RESIN PARTICLES

Title (de)

PREPREG, FASERVERSTÄRKTER VERBUNDSTOFF UND THERMOPLASTISCHE HARZPARTIKEL

Title (fr)

PRÉIMPRÉGNÉ, MATÉRIAU COMPOSITE RENFORCÉ DE FIBRES ET PARTICULES DE RÉSINE THERMOPLASTIQUE

Publication

EP 2949689 A4 20160907 (EN)

Application

EP 14743437 A 20140124

Priority

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- JP 2014051520 W 20140124

Abstract (en)

[origin: EP2949689A1] The invention provides a prepreg that can give a fiber-reinforced composite material exhibiting stable and excellent interlaminar fracture toughness and impact resistance under wide molding conditions. The prepreg includes at least a reinforcement fiber [A], a thermosetting resin [B], and the following component [C] wherein 90% or more of the material [C] is present inside a region of the prepreg that extends from any surface of the prepreg to a prepreg site having, from the surface, a depth of 20% of the thickness of the prepreg. The component [C] satisfies requirements that (i) the storage elastic modulus G' of the material constituting the particles is more than 1 MPa, and 70 MPa or less at 180°C, and that (ii) the ratio of the storage elastic modulus G' of the material constituting the particles at 160°C to the storage elastic modulus G' of the material at 200°C ranges from 1 to 5; and is insoluble in the thermosetting resin [B].

IPC 8 full level

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CPC (source: EP US)

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Citation (search report)

- [X] JP 2009221460 A 20091001 - TORAY INDUSTRIES
- [X] EP 2147035 B1 20110615 - HEXCEL CORP [US]
- [E] EP 2738202 A1 20140604 - TORAY INDUSTRIES [JP]
- [E] EP 2816072 A1 20141224 - TORAY INDUSTRIES [JP]
- See references of WO 2014115844A1

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DOCDB simple family (publication)

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DOCDB simple family (application)

EP 14743437 A 20140124; CN 201480005958 A 20140124; JP 2014051520 W 20140124; JP 2014504103 A 20140124; KR 20157021912 A 20140124; US 201414759570 A 20140124